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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,920	09/12/2003	Paul B. Aamodt	P-11618.00	8344
27581	7590	03/12/2007	EXAMINER	
MEDTRONIC, INC. 710 MEDTRONIC PARK MINNEAPOLIS, MN 55432-9924			CREPEAU, JONATHAN	
		ART UNIT	PAPER NUMBER	
		1745		
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	03/12/2007		PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/661,920	AAMODT ET AL.
	Examiner Jonathan S. Crepeau	Art Unit 1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 December 2006.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-19 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-19 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action addresses claims 1-19. The claims are newly rejected under 35 USC 102 and 103, as necessitated by amendment. Further, claim 16 is newly rejected under 35 USC 112, first paragraph. Accordingly, this action is made final.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 16 has been amended to recite that “an additional portion of separator material [is] disposed adjacent the dielectric separator.” There does not appear to be any corresponding disclosure in the instant specification of this feature, and the claim language reads on a variety of different configurations, none of which is discussed or contemplated in the specification. As such, it is believed that claim 16 as amended raises a new matter issue.

It is also noted that the original, pre-amendment language of claim 16 appears to lack proper antecedent basis in the specification. If the pre-amendment language is restored, appropriate amendment of the specification is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Yamaguchi (U.S. Patent 6,869,723). The reference is directed to a coiled electrode for a nonaqueous electrolyte secondary battery. As shown in Figures 4 and 5, the electrode (3) comprises a first segment forming an outer winding and a second segment forming inner windings. The “first segment” is defined as the portion of sheet 2a in the outer winding and the “second segment” is defined as the combined portion of the electrode sheets 2a, 2b constituting the inner windings. The thickness of the second segment is greater than that of the first segment. A current collector (1) is present on the outermost surface of the electrode and is coextensive therewith. The current collector is a solid aluminum foil (see col. 8, line 30). Thus, claim 1 is anticipated.

***Claim Rejections - 35 USC § 103***

6. Claims 1-5, 10-14, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi in view of Urry (U.S. Patent 4,333,994).

Yamaguchi is directed to a coiled electrode for a nonaqueous electrolyte secondary battery. As shown in Figures 4 and 5, the electrode (3) comprises a first segment forming an outer winding and a second segment forming inner windings. The “first segment” is defined as entirety of sheet 2a and the “second segment” is defined as the entirety of sheet 2b (note that interpretation of segments is different than in §102 rejection above). A current collector (1) is present on the outer surface of the electrode and is coextensive therewith. The current collector is a solid aluminum foil (see col. 8, line 30). Regarding claim 2, the “overlapping region” is defined as the region where sheet 2a and 2b are coupled. Regarding claims 3-5 and 13, a spacer member (5a, 4, 5b) is located on the inside surface of the first segment and comprises at least two sheets. Regarding claims 17-19, the spacer member may also be called a “reinforcing member” and comprises a lithium material (see col. 3, line 34). Regarding claim 14, the elongated electrode assembly (3) comprises a lithium manganese oxide (see col. 3, line 42).

Yamaguchi does not expressly teach that the thickness of the first segment is less than that of the second segment, as recited in claim 1.

The Urry patent is directed to a cell employing a coiled electrode assembly. As shown in Figs. 2 and 4 and described throughout the patent, with regard to one of the electrodes, the

section of electrode material forming the outer winding (e.g., "28" in Fig. 2) has a thickness less than the section of electrode material forming the inner windings (e.g., "26" in Fig. 2).

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to incorporate electrode sheets of different thickness into the cell of Yamaguchi. In column 2, line 10, Urry teaches that his invention results in a coiled electrode assembly that "will provide excellent output capacity for a given cell size." Urry further teaches that the invention allows for "substantial physical balance of the electrochemically utilizable active materials thereby resulting in an increased output capacity for a given size." As such, the artisan would be motivated use a decreased thickness in the sheet 2a of the cell of Yamaguchi, corresponding the claimed first segment, in hopes of obtaining these advantages.

7. Claims 6-9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi in view of Urry as applied to claims 1-5, 10-14, and 17-19 above, and further in view of Howard et al (U.S. Patent 6,051,038).

Yamaguchi does not expressly teach that a separator is disposed over at least an exposed surface of the current collector as recited in claim 6, or that two layers of separator material are sealed together to form a pouch (claims 8 and 9).

Howard is directed to a coiled electrode assembly having pouch-type separators on both electrodes (col. 3, line 30).

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use the pouch-type separators of Howard in the battery of Yamaguchi. At column 3, line 30, Howard et al. teach the following:

of the last turn of the winding. Also, for example, the anode <sup>3</sup> and cathode are preferably both enclosed within a pouch of separator material having an opening through which the connector tab of the electrode projects. The separator pouch then prevents the transport of stray material into the cell which could cause a short circuit and the double thickness of <sup>3</sup> separator between anode and cathode elements better resists damage during the winding process that could otherwise cause shorting during battery operation.

Accordingly, for the reasons stated in the passage, the artisan would be motivated to use the pouch-type separators of Howard in the battery of Yamaguchi, thereby rendering obvious the subject matter of claims 6-9 and 16.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi in view of Urry as applied to claims 1-5, 10-14, and 17-19 above, and further in view of Maruo et al (U.S. Pre-Grant Publication No. 2002/0061449).

Yamaguchi does not expressly teach that the positive electrode current collector comprises nickel, copper, titanium, or an alloy thereof.

Maruo is directed to a capacitor or nonaqueous battery. In [0103], the reference teaches that a positive electrode current collector may comprise stainless steel, aluminum, titanium, tantalum, or nickel.

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the disclosure of Maruo identifies titanium and nickel as functionally equivalent to aluminum when used as a positive current collector. An express suggestion to substitute one equivalent component or process for another is not necessary to render such substitution obvious. *In re Fout*, 675 F.2d 297, 213 USPQ 532 (CCPA 1982); MPEP §2144.06. As such, the use of titanium or nickel as the positive current collector of Yamaguchi would be obvious to the skilled artisan.

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re*

*Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 and 10-19 of copending Application No. 10/661,909. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the '909 application anticipate the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan, can be reached at (571) 272-1292. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau  
Primary Examiner  
Art Unit 1745  
March 8, 2007